DRIVING RECORDER

www.lukashd.com

LUKAS

Lukas Blackbox

Driving Recorder(Dashcam)

LK-6200 *Plus*

User's Manual

- Be sure to read the manual for the correct use of this product.
- Some of its functions may be altered without notification to users for the functional improvement of product.

Real HD
High Definition

- There may be some functional differences according to the firm ware version of the product.
- This product is an accessory for safe driving. In case of the car accident, all responsibility lies on the consumer. Therefore, use it appropriately for its purpose.
- In some PC products, Lukas viewer may not be supported.
- The operation of blackbox can influence other electronicdevices(FM, DMB etc.) and degrade the reception sensitivity by generating electromagnetic waves. Install blackbox as far as possible from the antennas of other devices.
- In a dim area, it may generate a noise in the recorded image.
- With CPL filter or other filters, the image quality may be degraded at night. Therefore, CPL filter is not recommended for the one who drives a car or monitors cars in the parking lot at night.
- When connecting GPS, be sure to cut off the power of blackbox.
- In the event of sudden frame change or recording mode change, it causes a loss in image data (0~5sec).
- When installing it, be careful not to interfere the driving with it. We have no responsibility in the car accident due to the wrong installation.
- When the car is stopped or parked, the recorded image may be shaken due to the car vibration.
- By continuous motion detection recording, additional files may be generated.
- Motion detection may be malfunctioned due to changes in surrounding amount of light, weather and surrounding environment.
- This product is designed to supply 3 line power (B+, ACC, GND) with built-in low voltage cut-off function.

Thank you for purchasing Lukas blackbox!

This manual was based on the Lukas Plus blackbox model of Qrontech, and there may be some errors and omissions in technology and edition. Visit our website **www.lukashd.com** where you can find diverse information.

■ Certification Information ■

1. Certified Co.: Qrontech Co., Ltd.
2. Equipment(Model) Name: Lukas Blackbox (LK-6200 Plus)
3. Certification Number: KCC-REM-QRN-LUKAS-CUTY
4. Manufacturer/Country : Qrontech Co., Ltd. / Republic of Korea

This machine is an electromagnetic equipment for business purpose(Level B). Dealers and users shall pay attention to use it for the right purpose rather than for the house.

Conformité Européenne (European Communities; EC)

Federal Communications Commission; FCC

■ Scope of Guarantee and Responsibility ■

※ This product is a recording equipment of image and sound for the visual proof of car accident, but we do not guarantee for it to record all the accident images and sounds.

※ We have no responsibilities for the damage due to the malfunction of this product, the damage by the data loss and other damages related with this product.

※ In general, the memory of the product has a life span and there may be the data loss due to the static electricity or the external voltage. Therefore, it is highly recommended to copy and save important data in other media (hard disk, CD, portable memory etc.).

※ Even in a car accident, if the impact is not big enough, the embedded sensor may not detect the impact for the auto record.

※ SD card may cause defective images (omission of image recording, cessation, frame change and omission, other defects in image recording) due to the speed-down in reading/writing and other defects. Be sure to use the genuine memory card, and format it periodically (once in two weeks for 16G).

※ This product is an accessory to record the driving image of car. As it may not record it according to the driving condition, just use it as a reference for the check of driving image.

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1. Attentive Items in Usage

1. Never leave it in a hot or cold place for a long time.
   If it is exposed to direct sunlight in summer or cold weather in winter for a long time, it may cause a malfunction or disorder. When not using the product, avoid leaving it over its storage temperature range.
   ※ Color of the UV filter frame may change when exposed to directly sunlight for a long time.

2. Neither dismantle this product nor alter its structure arbitrarily. When it is dismantled or altered arbitrarily, A/S is not available. For the check and maintenance, please contact seller or manufacturer.

3. Neither alter nor cut power cable. It may cause damage in the product and the car.
   The damage of product and car due to it shall be borne by the user.

4. Do not touch the power part of the product with a wet hand. And let the water not enter into the product. As it is not a water-proof product, this may cause its malfunction, fire or electric shock.
   When cleaning the product, use a soft dry cloth instead of water, volatile agent or detergent.

5. Never impose a heavy impact on it and never inject an alien material into it. Excessive impact, load or injection of alien material can cause its malfunction.

6. Keep dusts and impurities away from the lens of camera.
   And do not place other things near the installed product, for they can be reflected on the window and seen by the product.

7. Do not manipulate the product during driving. It may cause a car accident.

8. Attach this product so as not to fall during driving.
   Otherwise, it may not work properly or fall to obstruct the safe driving.

9. Use only the power cable and accessories that were certified by our company
   We are not responsible for all the product damages and other losses due to the use of uncertified parts.

10. The compatibility is not guaranteed for other devices and accessories that were not supplied by our company. The responsibility of product disorder due to this shall be borne by the user.

11. Do not operate the blackbox for a long time while the motor is not running. The car battery may be discharged and the motor cannot start on.

12. In case that the product has been attached for a long time or exposed to the vibrant driving condition, check the position of product and the angle of camera.

13. When the surrounding brightness changes as radically as entering/exiting a tunnel or the background light is too strong or there is no light around it at night, the quality of recorded image may be degraded.

14. In the car with an excessive tinting on the windscreen, its recorded image may be unclear or distorted.

15. In an accident with the impact lower than a certain amount, the event data may not be recorded. And at a big accident, the image may not be recorded due to the cut-off of power.

16. Never put out the SD card by force during the recording. Be sure to turn off the power before taking out the SD card. If the SD card is removed while the power is on, it may damage the image record file or cause the severe malfunction of product or memory.

17. Never pull out the power cable during the use of product. It may damage the product. Never use it on the other voltage than the rated one. It may cause the damage of product or the fire.

18. Format the SD card at least once a week (recommended for 8GB product). As the memory card of blackbox repeats the saving and deleting, the SD card usually gets a heavy load. The repeated writing and deleting can cause the damage of SD card file. The life span of SD card is about 180 days after purchase. Qrontech has no responsibility for the recording failure due to the use of expired SD card.

19. For the protection of machine and the stable recording, it has the function to stop the operation at the high temperature. At purchase, it is set to stop the recording in the hot environment higher than 70°. (When 'Use of High Temperature Safe Mode' is set in the PC viewer program environment.)

20. Non-GPS products may cause time error according to environment changes

21. Traffic lights may be seen flickering or differently duo to its located position, frequency or blinking interval.

22. Since no battery-discharging-protection function is in this product, connecting blackbox directly to vehicle's battery can cause battery discharge. In order to prevent this, install Lukas power safty device together with blackbox.

23. In case that there is or seems to be a problem in the product, contact seller or manufacturer for consultation. If you keep on using it despite the problem, it may be worse and you cannot get the ordinary A/S.

■ Cautions Regarding GPS ■

1. There is an error range of over 15m in a normal commercial GPS. There may be situations where GPS signals cannot bereceived depending on the environment such as buildings, underground, trees that make the error range bigger.
2. It may take some time to receive first GPS signal after power is turned on depending on the weather or other factors.
3. External devices(electronic, toll device) installed in a vehicle and window tinting may affect GPS reception.
4. Speed may vary (range of 1-30 km/h) depending on the reception area when stop the car
5. GPS information may be lost when turning off the power of blackbox.

2. Composition of Product

- Check if there are all the component items as in the picture below.
- AV cable (separately purchasable) is used to connect the blackbox and the products with AV IN terminal such as navigation and monitor.

※ Components can be changed without notice for the improvement of product function or quality.
※ Moire effect may occur due to tinting of windscreen when using CPL filter with blackbox.
※ Remove UV filter before using CPL filter.
※ Consumables certified by Lukas are recommended. Use of other consumables may restrict warranty service.
※ One main device is provided per model.

3. Names of Product Parts

<LK-6200 Plus>

<LK-6200G Plus>

	Name	Function
1	Security LED	LED is kept on while power is on
2	Lens	Image Shooting, CMOS digital sensor
3	37mm UV Filter	Lens Protection
4	Mounting Bracket (LK-6200Plus)	Affixed to the windscreen of vehicle
	GPS(LK-6200G Plus)	Receives GPS info such as location, time, speed etc
5	SD Card Slot	For Insertion/Removal of SD Card
6	Emergency Recording Button (E)	Press it longer than 3 sec: Change of Driving ↔ Parking Mode
		Press it shorter than 2 sec: Emergency Recording
7	GPS In	GPS connection
8	Speaker	Output of various voice guidance and buzzer sound
9	Segment LED	Displays time, speed, status etc
10	DC In	Power supply
11	AV-Out	Real time video output of blackbox using video output terminal
12	Power Switch	Switch for power on/off
13	Voice Recording Button (M)	Press it longer than 3 sec: Segment LED On/Off
		Press it shorter than 2 sec: Voice Recording On/Off

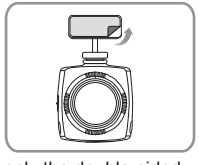
※ Although voice recording and sound effect On/Off settings are changed with black box button, the configuration automatically returns to the values set on the viewer when the black box is rebooted.

[Formatting Method of SD Card]

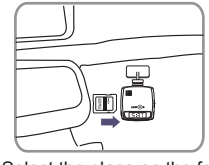
Type	Formatting using blackbox
Method	1. Insert SD card into blackbox and turn the power on. Wait until the bootingis complete. 2. Press E(6) and M(13) buttons at the same time. 3. 'For' blinks on the segment LED window 4. Press E(6) button to format. Formatting starts as 'For' stops blinking. Then voice guidance message sounds. After the completion of formatting, it automatically reboots. (duration time: about 12 sec) ※ Press M(13) button to cancel
Features	Environment setup is initialized. Back up 'Setup' folder to maintain the existing set value.

4. Installation Guide

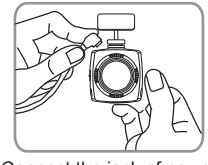
※ For the safety, be sure to check the following items before installation and then install it in order.
※ Park the car on a bright and flat ground and turn off the engine. Take off the key and then start the installation.
※ Clean up the window glass where to attach the blackbox.
※ Check the power terminal and the video-out terminal of blackbox in advance before installation.
※ If the lens of blackbox is set to be upward, the product may not work properly (GPS receiving and event continuous generation)
※ To secure the optimum image quality, keep the front window clean at all times.
※ If the lens of blackbox is contaminated with impurities (e.g. fingerprint), the recording quality may be degraded. Therefore, keep the lens clean at all times.



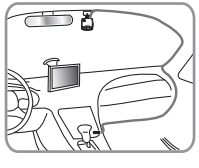
1. Apply the double-sided tape to the holding deck of blackbox.



2. Select the place on the front window not to interfere the driver's view and attach the blackbox. Insert the SD card into the product.



3. Connect the jack of power cable to the main body of product and squeeze the power cable along the A pillar(pillar beside the driver's seat).



4. Connect the power cigar jack and then start the engine to check if the version is displayed on the segment window of blackbox. (When adjusting the blackbox angle, it is better to connect the video-out terminal to the display of navigator and then adjust the angle while looking at the present image.

※ Power connection using cigarette lighter power cable.

◎ Continuous Power Cable Installation

1. Open the fuse box inside of the vehicle, choose the connection point to connect the continuous power supply wire and ACC wire.

2. First, pull out the fuse(cigarette lighter, audio etc.) to connect with the red ACC wire and insert together.
※ Location of ACC power supply may differ depending on the vehicle.

3. Pull out the fuse(emergency lamp, indoor lamp, tail lamp etc.) to connect with the yellow B+ wire(voltage) and insert together.
※ Location of B+ power supply may differ depending on the vehicle.
※ Connect continuous power wires (B+, ACC) to output part of fuse to enable normal operation.

※ When you install, make sure that you park the vehicle in a safe place then turn the ignition off.
※ For the accurate installation, we recommend user to have technical support for assistance.

5. Recommended Installation Angle of Product

Viewing angle of Lukas blackbox can be adjusted up, down, left and right by user. As the image quality may depend on the view angle, it is better to adjust the angle properly according to the following explanation.

※ Right images are ones photographed at the same time and same place by just changing the up/down angle. Left blackbox angles are examples for explanation and they can be changed according to the slope of front car window.

Fixed Image 40% Moving Image 60% (G-Sensor Z value: -0.22)

It is the image photographed in the recommended ratio of 4:6 at installation of product. It maintains the appropriate brightness and resolution and, as you can see, it can photograph even the signal light in front of it when the car stops exactly at the stop line.

〈권장사항〉

Fixed Image 50% Moving Image 50% (G-Sensor Z value: -0.27)

This problem occurs when it is bent excessively downward. As you see, there is no problem in brightness, but the correct information can hardly be obtained because the signal light is not seen.

〈권장하지 않음〉

Viewing angle is located at the end of the hood (G-sensor Z value: +0.15)

If the view angle is installed too upward, the screen gets generally dark due to the sun light on the left top. As shown here, the brightness of image may depend on the angle.

〈Not Recommended〉

※ Installation by Impact Sensor: Z-axis value lies on -0.1~-0.3. In case of general sedan, -0.2 is recommended.

Wait!

Optical lenses have the characteristics that 20% of left/right ends can get unclear, distorted and varied. It generates 10% or lower deviation on left/right sides (10% or lower in MTF basis).

6. Product Features

- **Clear Image:** HD Recording of 1280x720p / 16:9 Wide screen
- **Viewing angle that minimizes distortion**: Diagonal angle(132°)/Effective angle: Horizontal (92°), Vertical (51°)
- **Various 37mm Filters:** UV Filter, CPL Filter, MCUV Filter etc.
- **Direct Formatting Function**: SD card can be formatted directly in the product without a PC (refer to the bottom of page 8)
- **Security LED**: While recording the parking, it informs that the blackbox has been installed with the operation of security to prevent the accident.
- **Built-in Super Cap Battery**: Even when the power is cut off, saving of image data can be safely completed.
- **Support of Various Parking Mode**:
  - Always + Event : At least twice longer recording time available than recording in driving mode
  - Event + Motion Detection: Recording to be processed only in the event of impact or motion detection (30 seconds)
- **Support of Automatic Parking↔Driving mode change**: Selectable in environments setup
- **High-performance Microphone**: Sound as well as image can be recorded at the same time. (Voice recording On/Off: Settings of Lukas viewer or M button of black box unit.)
- **Output of Image**: Blackbox can provide the real-time images.
- **Informing of Current Operational State of Product:** Informs the operational state on the segment window of main body with the beep sound or voice guidance.
- **Built-in RTC (Real Time Clock)**: Recorded files are generated in time and date units.
- **Built-in 3-axis Impact Sensor (G-Sensor)**: It saves the file recorded by external impact.
- **Auto-deletion of Recorded Images**: If the memory is filled up, oldest image is deleted and newest image is saved.
- **Setup of Diverse Environments**: Customized recording can be provided by situations with the setup of terminal environment.
- **Replay of the video by general media player or Lukas viewer:** It provides the analysis program for the recorded images.
- **High Temperature Safety Mode**: Function to protect the blackbox in the high temperature condition (Approx. 70℃) of the car.

◆ **Equipped with vehicle battery discharge-prevention system**: Possible to set low-voltage cut-off function by connecting B+, ACC and GND wires. (Continuous power cable)

◆ **Recommended voltage of continuous power supply**: Winter season – 12.3V /
Summer season – 12.0V

※ In winter season, car battery performance declines drastically according to the changes in environmental temperature, which may cause battery discharge.

7. 7 Segment LED Messages and Voice Guidance

■ 7 Segment LED Messages of Lukas Blackbox ■

7 Segment LED Message	Voice Guidance	Description
	Welcome, this is Lukas blackbox. Drive safely.	Screen that appears at the initial booting of blackbox to show the firmware version. It may differ according to the product model and firmware version.
	-	After the booting is completed, time is displayed when the vehicle stops. (It may differ according to settings)
	-	After the booting is completed, date is displayed when the vehicle stops. (It may differ according to settings)
	Voice recording started. Voice recording stopped.	When the voice recording function is activated, dot on the upper right side blinks.
		It indicates that the event buzzer is disabled.
	Firmware update starting. Do not turn off the power. Firmware updating is complete.	When starting the firmware update, ‘UPdA’ appears.
	Parking mode recording started. (or) Parking motion detection mode started.	When operated in parking mode, it displays 'PAr'.
	Driving mode recording started.	When switched to driving mode, it displays 'drv.'
	Format SD card.	It displays ‘For’ during the manual formatting process.

■ 7 Segment LED Messages of Lukas Blackbox ■

7 Segment LED Message	Voice Guidance	Description
	No SD card detected.	When SD card is not inserted or removed forcibly, 'Sd_FAIL' is displayed.
	SD card cannot be read.	When SD card is locked, 'Sd_Lock' is displayed.
	High temperature safety mode started. High temperature safety mode stopped.	If the blackbox is exposed to a hot environment while the high temperature safe mode is activated, 'SAFE' is displayed and the safe mode is executed.
	Terminating the system.	When the power goes off and stops operation, 'SEE You' is displayed.
	-	It displays current speed while driving. (GPS model only)
	Weekly carfree alarm function is activated.	It may differ according to the settings.

8. How to Use

■ Power Connection ■

First, check if SD memory card is inserted into the main body. Then, start the engine while the power of product is connected. (Keep the power ON.)

- **During the booting**: After the power supply the version is displayed on the segment window. After completion of initialization, the time is displayed on the segment window.

■ Recording While Driving ■

- **Driving Recording :** After completion of booting, recording starts with buzzer sound or voice guidance and the image is saved in AlwaysMovie folder.
- **Event Recording** : When it detects an impact greater than the one set up by the user(Impact, sudden start, sudden brake), it starts the event recording and issues the buzzer sound once, blinking the segment window. The image is saved in the EventMovie folder and the total recording time is 30 sec (10 sec before event, 20 sec after it).
  * The detective level of acceleration sensor can be set up in the environment setup of PC viewer program.
  * If another impact is generated during the event recording, it does not work until the event recording is finished.
  * If the power is turned off during the event recording, the power goes out after the completion of event recording.
- **Emergency Recording(Manual Recording)** : Even without any impact, if the emergency recording button is pressed, the image is saved in the EventMovie folder. The total recording time is 30 sec (10 sec before event, 20 sec after it)
  * The emergency recording cannot be operated during an event recording.
  * During the emergency recording, no event recording is operated even with an impact.
- **If SD card is removed during driving mode recording**
  (1) If SD card is arbitrary removed from the product during the always recording, the presently recording file cannot be saved normally.
  (2) It can have a severe damage on SD card and the product.

■ Termination of Recording ■

◈ When the engine is tumed off, the power of the product also goes off and the recording is finished(It may differ depending on the installation method or device settings). Before then, if the working blackbox is stopped in the following order, it is helpful in maintaining the life span of the product and preserving the data.

1. In case of manual recording, it is better to wait for about 20 sec before removing the power.
2. When the product is turned off,'See you' appears on the segment window with the buzzer sound or voice guidance "Terminating the system".

* Notice: If SD card is removed before the power off, an error may occur in the recorded image. Be sure to remove SD memory card only after turning off the product completely.

3. If power cable is completely removed from the black box unit, it can prevent the discharge of car battery.

■ Recording While Parked ■

1. The change to parking mode can be made in two ways: manual and automatic.

Manual: Press the emergency recording button for longer than 3 sec. Then, 'PAr' sign blinks on the segment to show the change to the parking mode.

Automatic: If 'Auto-switch to Parking Mode' is checked in the user's environment setup, the sign 'Par' blinks automatically about 10 min after the car stop and it is switched to the parking mode. After completion of change to parking mode, the sign 'Par' stops blinking and buzzer or voice guidance sounds.

* When switched to the parking or driving mode, it stops the recording and therefore the image data may be lost.

2. Recording while parking is indicated as the symbol "Parking" at the bottom when playing the saved image.
   * If it is switched to the parking mode in always recording, event recording and manual recording state, each file in record is stopped to be switched to the parking mode. Therefore, it can cause the time delay.
3. When selecting Event + Motion Detection, the image is saved in the MotionMovie or EventMovie folder for 10 sec before event and 20 sec after event (total recording time is 30 sec) only in the event of motion detection or impact.
   * When there is no motion detected, recording is not carried out. And in the event of motion detection, the security LED blinks fast.
   * In the area with no light, motion detector may not work.

■ Check of Current Image ■

1. Product model with av-out terminal, it can be connected to the external input (AV in) of navigation or DMB to check the current image. It can be used for adjusting the blackbox angle.
   * Once adjusting the angle, remove the av-out cable while driving. Due to the connected external device, it may not work properly.

■ Playback of Recorded Image ■

1. In case that the image is to be checked urgently, turn off the power of main body and, after checking the sign 'See You' on the segment window with the buzzer sound or voice guidance. Then remove the SD card.
2. Insert the memory card into the PC or notebook, and play it with Lukas viewer or a general media player.

[When playing with general media players]

Get into My Computer/Portable Disk/Recorded Image Folder, and double-click the wanted image or drag it into the media player screen.

[When playing with Lukas viewer]

- Start Lukas viewer.
- Click Open icon on the upper side of the viewer window.
- Select My Computer/Portable Disk/Recorded Image Folder, and press ENTER.
- Double-click the file to open in the list of files that appears on the right of play screen. Then the image is played.

9. Parking Mode Recording and SD Card Memory Capacity Setup

■ Setup of Parking Mode Recording ■

1. **Always + Event**: Two image saving folders such as AlwaysMovie and EventMovie are generated for operation. In the event of parking mode, motion detection is not used, but forced to change to parking image quality so as to enable it to record continually for longer than parting recording.
2. **Event + Motion Detection**: Three image saving folders such as AlwaysMovie, EventMovie and Motion Movie are generated for operation. In the event of driving mode, the image is saved into AlwaysMovie and EventMovie, and in the event of parking mode, only EventMovie and MotionMovie are used. Continuous recording is not carried out, and only in the event of impact and motion detection, the image for 10 seconds before and after 20 it is saved.

※ Because continuous recording is not carried out, select and setup the sensitivity according to parking environment. When parking in an alley, motion detection recording may be obstructed due to frequent movement.

※ To enable parking mode recording after the car ignition is off, black box must be installed and connected with continuous power cable. Vehicle's battery status may effect operation of parking mode recording.

※ Unstable operation could occur during the switch from motion detection recording to driving mode recording.

■ Setup of SD Card Memory Capacity ■

Memory capacity setup can be made by splitting the storage space of each image saving folder.

1. Always : Event
   - 75:25 (Default): 75% of SD card's total capacity is setup as AlwaysMovie and remaining 25% is setup as EventMovie.
   - 80:20: 80% of SD card's total capacity is setup as AlwaysMovie and remaining 20% is setup as EventMovie.
   - 90:10 (Focusing on always recording): 90% of SD card's total capacity is setup as AlwaysMovie and remaining 10% is setup as EventMovie.
2. Always : Event : Motion
   - 70:10:20 (Default): 70% of SD card's total capacity is setup as AlwaysMovie, 10% is setup as EventMovie, and remaining 20% is setup as MotionMovie.
   - 80:10:10: 80% of SD card's total capacity is setup as AlwaysMovie, 10% is setup as EventMovie, and remaining 10% is setup as MotionMovie.
   - 50:20:30 (Focusing on motion detection recording and event recording): 50% of SD card's total capacity is setup as AlwaysMovie, 20% is setup as EventMovie, and remaining 30% is setup as MotionMovie.

※ For recording time and number of files according to setup above, refer to "LUKAS LK-6200 Plus Viewer Installation and Environment Setup Guide" stored on the Lukas SD card.

※ Recording time and number of cases become reduced as the image quality gets setup to high image quality.

※ In order to change the setup of parking recording mode and SD card capacity, always do format SD card first and then save the environment setup for use.

10. Product Specification

Item	Specification
Product	LK-6200 Plus
Lens	1.3M Pixels CMOS digital sensor
Viewing Angle	Diagonal angle(132°) Effective angle: Horizontal (92°), Vertical (51°)
Resolution	1280x720p (Max. 24fps)
Sensitivity	Approx. 1 Lux / F1.88
Video Compression	H.264 (AVI format)
G-Sensor	Built-in 3-axis gravity sensor (Impact, sudden break and sudden start)
GPS	Built-in U-Blox6 (GPS model only)
Storage Medium	SD/SDHC Memory card, SDXC available in part (Basic 8GB / Max. 128GB)
Player	General media player / Lukas viewer
Audio	Built in microphone / speaker
Power	DC 9V~24V
Video Output	NTSC / PAL
Operating Temperature	-20℃ ~ 70℃
Storage Temperature	-30℃ ~ 80℃

- The operating temperature may change according to the performance of SD card.
- Please use the SD card offered by our company. We have no responsibilities on the problems caused by the use of other SD cards.
- As the SD card works at a high temperature, be careful not to be burnt by it when taking it out.
- If it is used at a temperature higher than 70℃, image quality may be affected.
- In the characteristics of optical lens, the images of left and right side may have different quality.
- When separating/inserting the SD card, be sure to check if the power and the segment are turned off. If the card is separated/inserted while the power is on, the data in t he card may be lost or the blackbox may work improperly.
- The use of CPL filter is not recommended for those who frequently drive cars or monitor cars in the parking lot at night.
- The product specification may change for the improvement of performance.
- Motion detection recording may not be carried out depending on surrounding environmental change.
- Continuous motion detection recording may generate additional files.

11. Quality Assurance

Model Name		Product S/N	
Customer's Name		Purchase Date	
Customer's Phone Number		Purchased Place	

1. A standard 1-year warranty is provided from the date of purchase. However, a 6-month warranty is provided for accessories, including memory card.
2. This product has been manufactured under the strict quality management and test procedure.
3. This manual works as the warranty. As it is not re-issued, please keep it carefully.
4. If a disorder happens during normal use, our customers' service center will provide the free repair under the warranty. Please contact seller or manufacturer
5. When asking the repair, please present this warranty.
6. We are not responsible for any costs incurred to install or uninstall the product, regardless of warranty status.
7. For more information, contact manufacturer or your local dealer.

12. Memo

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